Ali Abdari

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Education

2023 – present 📖 **Ph.D. Student, University of Naples Federico II, University of Udine, Italy** Artificial Intelligence.
Area: *Complex 3D Scene and Metaverse Retrieval*
Supervisor: Prof. Giuseppe Serra
Expected Graduation: October 2025

2016 – 2019 📖 **M.Sc. Kharazmi University, Iran** Computer Science.
Thesis title: *Action Recognition in Compressed Video*.
Supervisor: Prof. Azadeh Mansouri
GPA: 18.34/20

2012 – 2016 📖 **B.Sc. Kharazmi University, Iran** Computer Engineering.
Thesis title: *Reporting Financial affairs using Business Intelligence*.
Supervisor: Prof. Zahra Nilfroushan
GPA: 16.98/20

Selected Publications (Google Scholar)

Conference Proceedings

1. A. Abdari, A. Falcon, and G. Serra, "A language-based solution to enable metaverse retrieval," in *International Conference on Multimedia Modeling*, Springer, 2024, pp. 477–488.

2. A. Abdari, A. Falcon, and G. Serra, "Adoctera: Adaptive optimization constraints for improved text-guided retrieval of apartments," in *Proceedings of the 2024 International Conference on Multimedia Retrieval*, 2024, pp. 1043–1050.

3. A. Falcon, A. Abdari, and G. Serra, "Hierartex: Hierarchical representations and art experts supporting the retrieval of museums in the metaverse," in *International Conference on Multimedia Modeling*, Springer, 2024, pp. 60–73.

4. A. Abdari, A. Falcon, and G. Serra, "Farmare: A furniture-aware multi-task methodology for recommending apartments based on the user interests," in *Proceedings of the IEEE/CVF International Conference on Computer Vision*, 2023, pp. 4293–4303.

5. A. Abdari, A. Falcon, and G. Serra, "Metaverse retrieval: Finding the best metaverse environment via language," in *Proceedings of the 1st International Workshop on Deep Multimodal Learning for Information Retrieval*, 2023, pp. 1–9.

6. N. Honarjoo, A. Abdari, and A. Mansouri, "Violence detection using pre-trained models," in *2021 5th International conference on pattern recognition and image analysis (IPRIA)*, IEEE, 2021, pp. 1–4.

Journal Articles

1. A. Falcon, A. Abdari, and G. Serra, "Alcer3d: Adaptive learning constraints for enhanced retrieval of complex indoor 3d scenarios," *IEEE Transactions on Multimedia*, 2025.

2. N. Honarjoo, A. Abdari, and A. Mansouri, "Violence detection in compressed video," *Multimedia Tools and Applications*, pp. 1–14, 2024. 🔗 URL:
https://link.springer.com/article/10.1007/s11042-024-19478-0.

3   A. Abdari, P. Amirjan, and A. Mansouri, "Speeding up action recognition using dynamic accumulation of residuals in compressed domain," *arXiv preprint arXiv:2209.14757*, 2022.

Academic Activities and Achievements

2025	Organizing 4th edition of CV4Metaverse Workshop at CVPR 2025, Nashville, USA
	Selected as a Local Organizer Chair of the IRCDL 2025 conference
	Supervising a Ph.D. student in agricultural and meteorological data processing using machine learning.
	Supervising a researcher in the field of processing plant genetic data using machine learning.
2024	Organizing 3rd edition of CV4Metaverse Workshop at ECCV 2024, Milan, Italy
	Organizing Metaverse Apartment Retrieval Challenge at CV4Metaverse Workshop at ECCV 2024, Milan, Italy
	Participation in the Summer School on Computer Vision in the Age of Large Language Models, ICVSS, Sicily, Italy
2023	Participation in the Summer School on Large-Scale AI for Research and Industry, ELLIS, Modena, Italy
2022	Achieved Scholarship at the University of Naples Federico II
2016	Got selected among the first four talented students to start the Master's program without entrance exam

Professional and Academic Experiences

2023 – 2024	**Teacher Assistant** of Deep Learning, University of Udine.
2021 – 2023	**Computer Vision and Machine Learning Researcher** Kharazmi University.
2022	**Computer Vision Engineer** Caica Company.
2019 – 2021	**Computer Vision Engineer** Iran's National Elites Foundation.
2017 – 2018	**Python Developer** Vestaak
2017 – 2019	**Teacher Assistant** of Digital Image Processing, Artificial Neural Network, Kharazmi University.
2013 – 2016	**Teacher Assistant** of Data structure, Automata theory, Design and Analysis of Algorithms, Introduction to Programming and Advanced Programming, Kharazmi University.

Skills

Languages	English(Fluent, 7.5 IELTS band score), Italian (C1), Persian(Native).
Coding	Python, C++, C, MATLAB, R, Java, PHP, C Sharp, SQL, Julia.
Databases	MySQL, SQL Server, SQLite, MongoDB.
Web Dev	HTML, CSS, JavaScript, Bootstrap.
ML/DL Frameworks	PyTorch, Keras, HuggingFace, OpenCV, Dlib, MediaPipe, NumPy, Pandas, MatPlotLib, and SciKit-Learn.

Selected Projects

Cross Modal Processing	3D scene/Point Cloud Retrieval, Contrastive Learning, Text-to-Scene alignment

Selected Projects (continued)

Video Processing   ▉ Action Recognition in raw and compressed video, Primates Behaviour Analysis, Traffic Video Analysis, Video Synopsis, Multi-Object Tracking in surveillance videos, Fatigue Detection using eye features

Image Processing   ▉ OCR, Water Marking, Segmentation, Classification

Tabular data   ▉ Prediction of Agricultural and Meteorological data, Genetic data processing to identify patterns

Miscellaneous   ▉ EEG Signal Analysis, Risk Assessment in Autonomous Vehicles, Vehicle Position Prediction using AI, Web Crawling to Collect Data

References

▉ **Prof. Giuseppe Serra**, Associate Professor at University of Udine, Udine, Italy, email: `giuseppe.serra@uniud.it`

▉ **Prof. Azadeh Mansouri**, Assistant Professor at the Department of Electrical and Computer Engineering at Kharazmi University, Tehran, Iran, email: `a_mansouri@khu.ac.ir`